

**Virginia Division of Consolidated Laboratory Services**  
**PROTOCOL FOR THE COLLECTION AND SUBMISSION OF MULTIPLE SPECIMENS**  
**FOR ISOLATION AND IDENTIFICATION OF INFLUENZA**

[September 2005]

DCLS will provide the collection materials and testing services in support of state and federal influenza monitoring and outbreak investigation programs.

**Specimen Collection Kits:** Isolation kits are prepared by DCLS and may be obtained from the Sample Kit Office at (804) 648-4480 ext.103 or 104.

**Isolation Collection Kit Contents (for multiple specimens):**

1. Four (4) sterile Viral Transport Media (VTM broth) **Store at 2°– 30°C (36-86°F). Do not use if turbid.**
2. Four (4) polyester (Dacron) swabs, aluminum shaft (**Avoid wooden shafts.**)
3. Four (4) small, sealable specimen bags with absorbent pads
4. One set of instructions
5. Four (4) metal containers (**Do not attach labels to these containers.**)
6. Large, sealable, biohazard plastic shipping bag [with "Attn: Viral Isolation" label] with pouch
7. Four (4) reference request/reporting forms. (DGS form # -22-164[Rev.1/89])
8. Two (2) cold packs. (Store frozen so they will be ready for transport.)
9. One large cooler and one return address label (Necessary for Specimen Transport to the lab)

**Nasopharyngeal (np) Wash collection kit (sent only by request)**

1. One 5 cc syringe
2. Sterile screw-cap urine cup
3. Sterile Saline

**Instructions for Specimen Collection: ISOLATION SPECIMEN SHOULD BE COLLECTED WITHIN 48 HOURS OF ONSET OF ILLNESS.** Each isolation kit provides enough material to sample four patients. Collect specimen as close to clinical onset as possible and ship quickly to the lab (*must be received within 72 hours of collection*) using provided cooler *and* cold packs. Collection of specimens for a nursing home outbreak or other outbreak should be conducted through the local Health Department. A selective sampling of the most recently ill individuals may be considered in these outbreak scenarios. Appropriate specimens for virus isolation are listed below.

**Collection Procedures for Various Specimens:**

**1. Nasopharyngeal Swab**

- Instruct the patient to sit with head slightly tilted backwards. Gently push the tip of the patient's nose back with your thumb.
- Insert the nasopharyngeal swab into the nostril back to the nasopharynx. The patient's eyes will momentarily tear. Slowly rotate the swab as it is being withdrawn.
- Repeat this process using the same swab in second nostril to collect from the nasopharynx.
- Insert the swab into the transport broth bending the wire if necessary to fit completely inside the vial. The broth should cover the tip of the swab in the vial. Tightly cap the vial.
- Label the VTM collection tube with the patient's name and date of collection. Complete the reference request/reporting form (DGS form # -22-164[Rev.1/89]) and refrigerate the specimen until packaging for transport.

**2. Nasopharyngeal Wash (If using collection kit for np wash)**

- Use only sterile saline to collect wash.
- Obtain collection materials and bring saline to room temperature.
- Instruct the patient to sit with head slightly tilted (70 degree angle) backward and to hold the sterile collection cup.
- Instruct the patient on how to constrict the muscles at the back of the throat by saying "K" sound rapidly and repetitively. Inform the patient that this process may prevent the saline from draining down the throat.

[pictorial]

- Fill the 5 cc syringe with sterile saline. Gently push the tip of the patient's nose back with your thumb and quickly inject 1 to 2cc of saline into each nostril.
- Instruct the patient to contain the saline in the nostril for approximately 10 seconds while repetitively saying the "K" sound. After 10 seconds, ask the patient to tilt his/her head forward and collect the saline in the sterile cup.
- Pour as much of the saline collected from the patient as possible into the vial containing the transport broth, cap and seal tightly.
- Label the VTM collection tube (NOT the metal container) with the patient's name and date of collection. Complete the reference request/reporting form (DGS form # -22-164[Rev.1/89]) and refrigerate the specimen until packaging for transport.

### **Instructions for Specimen Transport:**

- ✓ Ensure specimens are properly labeled and one reference request/reporting form for each patient has been completed before transport.
- ✓ Place and seal each labeled specimen in small specimen bag containing the absorbent pad; then place in metal container and securely screw on lid.
- ✓ Place metal containers containing specimens in large biohazard shipping bag. This bag may contain from 1 to 4 metal containers. When all the metal containers are placed in the biohazard bag, seal the bag. Place all reference request/reporting forms in the pouch of the biohazard bag.
- ✓ Place sealed biohazard bag containing the metal containers in the supplied cooler with frozen cold packs to **keep specimen refrigerated**. This increases chance of viral recovery.
- ✓ Seal cooler for shipment to lab and affix correct address label (supplied) to cooler exterior. Ship specimens without delay (best to ship same day as collection.)
- ✓ Each shipment of specimens from a submitter must comply with shipping regulations detailed in IATA 1.5 and 49 CFR Section 1720700 [U.S. Department of Transportation.]
- ✓ Send specimen to lab by DCLS courier. Use the following address on all packages:

Division of Consolidated Laboratory Services  
Specimen Receiving, Room 155  
600 North 5<sup>th</sup> Street  
Richmond, VA 23219-3691  
ATTN: Viral Isolation

**Result Reporting:** Routine monitoring results are mailed to submitter and the Office of Epidemiology. When alerted of a medical emergency or an outbreak, results will be telephoned to the submitter and to the Office of Epidemiology only if a reporting telephone number was provided.

**Specimen Rejection:** Specimens may be rejected for the following reasons: specimens received by laboratory more than 72 hours after specimen collection; not keeping specimens within transport temperature requirements; not labeled or incorrectly labeled specimens; specimens with insufficient volume; specimens collected in expired viral transport media; or specimens collected in isolation kits not supplied by DCLS. Contaminated specimens may also be unsatisfactory for viral culture.

**Requests for Additional Information or Questions:** For additional information or questions about specimen collection or transport to the laboratory, please call (804) 648-4480 ext. 271 or 272. To order collection kits, please call (804) 648-4480 ext.103 or 104.